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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/430,642 10/29/99 GELLER

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WILLIAM J BURKE
SARNOFF CORPORATION
C/O PATENT OPERATIONS
CN 5300
PRINCETON NJ 08543-5300

EXAMINER

JONES, S

ART UNIT

PAPER NUMBER

2817

DATE MAILED:

02/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/430,642

Applicant(s)

GELLER ET AL.

Examiner

Stephen E. Jones

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-8 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group II, drawn to a waveguide resonator in Paper No. 6 is acknowledged. Claims 4-8 presently read on the elected invention.
2. Claims 1-3 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Specification

3. The disclosure is objected to because of the following informalities:

Regarding page 5 (line 15), it appears that the term --cavity-- should be inserted before the term "walls 18" so as to be consistent with the recitation of "cavity walls 18" recited on line 17.

Appropriate correction is required.

Claim Objections

4. Claims 4, 5, 7, and 8 are objected to because of the following informalities:

Regarding Claim 4, the phrase "first green tape stack having apertures therein" is confusing because it appears that the conductive walls actually have the aperture and not the green tape stack (see Fig. 2 line item 19).

Also regarding Claim 4, it appears that the phrase "said first green tape stack" should be read as --a first of the ^{two} green tape stacks-- to make it clear which of the previously recited "two fired green tape stacks" it is referring. **Claim 7** suffers from a similar deficiency.

Regarding Claim 5, the phrase "second metal layer" is confusing because a "first metal layer" has not been previously recited.

Also regarding Claim 5, the phrase "a green tape layer" is not clear as to which of the previously recited "two fired green tape stacks" it is referring.

Regarding Claim 8, the phrase "incorporating green tapes having varying dielectric constant into the structure" is misleading since it seems to be indicating that it is adding "green tapes" when in actuality it appears that the disclosure indicates that it is ^{pre}merely ^Aselecting "green tapes" of "varying dielectric constant" to change the frequency characteristics of the structure.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 4-6, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Piloto et al..

Piloto et al. (Fig. 7) discloses a waveguide filter including: a culmination of slots (68) which form conductive walls sandwiched in a dielectric substrate (46) and protruding through the substrate; the slots form the boundaries of resonators (42) which are coupled together by iris sections (i.e. apertures) (67); metal layers are disposed on the top and bottom of the filter (see Col. 5, lines 65-67) (Claim 5); the waveguide filter

structure is rectangular (Claim 6). Piloto also teaches that the dielectric constant of the dielectric can be adjusted which would inherently vary the operating frequencies of the structure (see Col. 4, lines 21-25) (Claim 8).

Note that Claim 4 contains method limitations (e.g. fired green tape stacks) which cannot be given any patentable weight since it is only the final structure which is patentable.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Piloto et al. in view of Kubota et al..

Piloto et al. discloses a waveguide filter as discussed above. Piloto et al. also discloses the filter having input/outputs (63) coupled to stripline electrodes (56 and 58) (Col. 7, line 10), and the input/outputs go through openings in the dielectric. However, Piloto et al. does not disclose a probe and connector which couple to the striplines.

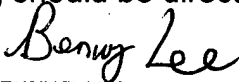
Kubota et al. (Fig. 7) discloses a straight connector and probe (i.e. e-probe) which couples to a resonant cavity.

It would have been obvious to one of ordinary skill in the art to have substituted a functionally equivalent probe and connector such as taught by Kubota et al. in place of the generic input/output coupling coupled to the stripline in the Piloto et al. device, because it would have provided a well-known input/output coupling and connection means for the waveguide filter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen E. Jones whose telephone number is 703-305-0390. The examiner can normally be reached on Monday through Friday from 8 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Pascal can be reached on 703-308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0142 for regular communications and 703-305-0142 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


BENNY T. LEE
PRIMARY EXAMINER

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ART UNIT 2817
February 1, 2001